kintech engineering

IEC 61724-1 CLASS-A SOLAR MONITORING

IDEAL SOLUTION FOR EPC CONTRACTORS

Kintech Engineering's solar monitoring system is a comprehensive measurement solution for post-construction monitoring of utility-scale photovoltaic projects with complete data integration into the plants SCADA system.

The system uses the highly reliable Orbit 360 Premium data acquisition system, designed to retrieve data from a variety of digital and analog sensors, enabling the user to evaluate the exact efficiency of the PV solar plant.

IEC 61724-1 CLASS-A SOLAR MONITORING | IDEAL SOLUTION FOR EPC CONTRACTORS

DESCRIPTION

Taking advantage of 20 years of expertise in remote data acquisition systems, we have put together a complete high precision solar monitoring system that is easy to install and operate.

The monitoring system is specifically designed for solar PV plants, providing a comprehensive environmental monitoring solution for users with a variety of sensors, including GHI, DNI, albedo, temperature and humidity, wind direction, wind speed, and back-of-module temperature, rain gauge etc.

BENEFITS

- Full compliance with IEC-61724-1 Part 1: monitoring
- Highly versatile solution with optional ad on sensors
- Can be connected with up to 3 SCADA systems simultaneously
- 1 second data backup available to fill SCADA gaps
- Primary power supply using the (90 to 230Vac) from the solar power plant
- Auxiliary 12V solar powered as backup (5 to 30Vdc)
- Plug and play solution with metal enclosure equipped with overvoltage and differential and thermomagnetic protection.
- Very low overall power consumption fully functional with a small solar panel
- Redundant mobile internet connectivity (SIM card and 2 years data plan included) for remote access to settings and historical data even through app

For more information please contact **solar@kintech-engineering.com**
or visit our website **www.kintech-engineering.com**

kintech engineering

IEC 61724-1 CLASS-A SOLAR MONITORING | IDEAL SOLUTION FOR EPC CONTRACTORS

TYPICAL SETUP

- Orbit 360 data acquisition system
- K620A cup anemometer
- K360V wind vane
- K846TH temperature and humidity sensor
- 0.2 mm resolution precipitation sensor
- Horizontal pyranometer SR30 or SR20-D2
- Albedometer SRA20-D2
- PoA Pyranometer SR30 or SR20-D2
- Module temperature sensor, PT1000 or PT100
- Metal enclosure
- Solar power supply system incl. solar panel, backup battery and regulator

Note: The system is supplied with all the necessary support brackets and sensor cables for quick plug-and-play onsite installation.

DATA AQUISITION SYSTEM

The Orbit 360 data logger allow our customers to connect up to 24 digital instruments and seamlessly retrieve data via the integrated Modbus RTU RS485 and Modbus TCP ethernet ports. A complete set of historical data is stored on the data logger and is available for remote download via the built-in GSM/GPRS modem. This allow our users to easily get access to the condition of PV systems anytime and anywhere and no matter the condition of the SCADA system.

Features

- Configurable averaging time in minutes (1,5, 10 min.)
- 1 Hz sampling time
- 20-year internal data capacity on extractable SD memory card with 100-day internal backup memory
- 1 second data backup available to fill SCADA gaps
- 3 x RS-485 buses allowing for 24 simultaneous digital instruments (e.g. SR30)
- 16 x Frequency Channels (pulse counters)
- 23 x Analog Channels (voltage)
- 1 x Integrated Modbus RTU (RS485) – Listening port
- 2 x Integrated Modbus TCP (Ethernet) – Listening ports
- GSM/GPRS communication with included global SIM card

SOFTWARE FOR DATA RETRIEVAL

The Atlas software together with our latest app Atlas Mobile enable you to supervise and connect remotely to all your individual solar monitoring stations.

- Remote configuration via the build-in GSM modem on the Orbit 360
- Real time connection for remote monitoring available 24/7
- Remote download of backup dataset (historical data)

Note: Data from the monitoring station can be fully integrated to a client FTP server.

Last modified: 11.05.2020

For more information please contact **solar@kintech-engineering.com**
or visit our website **www.kintech-engineering.com**

kintech engineering